IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A lithium battery separator having a shutdown function, and comprising:

a porous carrier having a comprising a porous inorganic, nonelectroconductive coating layer that is bonded to a shutdown layer comprising meltable shutdown particles on and in said carrier, and

wherein a shutdown layer of shutdown particles, which melt at a predetermined temperature and close the pores of said inorganic layer, is present on said inorganic layer and bonded thereto.

Claim 2 (Currently Amended): The separator according to claim 1, wherein said porous carrier is flexible and less than 50 μm in thickness and is bendable down to a radius of 0.5 mm to 50 mm without damage.

Claim 3 (Currently Amended): The separator according to claim 1, wherein said porous carrier comprises woven or non-woven polymeric or glass fibers.

Claim 4 (Currently Amended): The separator according to claim 3, wherein said porous carrier is a polymeric nonwoven fiber.

Claim 5 (Currently Amended): The separator according to claim 3, wherein said porous carrier comprises polymeric fibers that are selected from fibers of polyacrylonitrile, polyester, polyolefin, or mixtures thereof.

Claim 6 (Currently Amended): The separator according to claim 1, wherein said porous carrier is less than 30 μm in thickness.

Claim 7 (Currently Amended): The separator according to claim 1, wherein said porous inorganic coating layer, present on said porous carrier, comprises oxide particles of the elements Al, Si and/or Zr from 0.5 to 10 μm in size on average.

Claim 8 (Currently Amended): The separator according to claim 1, wherein said shutdown particles have an average size (D_w) which is greater than the average pore size (d) of [[said]] the pores of said porous inorganic layer.

Claim 9 (Previously Presented): The separator according to claim 8, wherein the layer of shutdown particles has a thickness (z_w) which is approximately in the range from said average size of said shutdown particles (D_w) up to 10 times said particle size D_w.

Claim 10 (Currently Amended): The separator according to claim 1, wherein said shutdown particles are selected from contain at least one polymer[[s]], polymer blend[[s]], natural wax[[es]] or artificial wax[[es]].

Claims 11-23 (Canceled)

Claim 24 (Currently Amended): A process of preparing a battery[[,]] comprising, inserting the separator as claimed in of claim 1 into a battery cell.

Claim 25 (Currently Amended): A battery comprising:
the separator [[as claimed in]] of claim 1, and
one or more additional components.

Claim 26 (New): The battery of claim 25 that is a lithium battery or a lithium high power or high energy battery.

Claim 27 (New): The battery of claim 25, wherein the meltable shutdown particles melt at a temperature ranging from 120°C to 150°C and close the pores in the separator, thus suppressing the ion flux in the battery.

Claim 28 (New): The separator of claim 1, wherein the porous inorganic, nonelectroconductive coating layer is fully ceramic.

Claim 29 (New): The separator of claim 1, wherein the meltable shutdown particles contain at least one natural or artificial wax.

Claim 30 (New): The separator of claim 1, wherein the meltable shutdown particles contain at least one polyolefin.

Claim 31 (New): The separator of claim 1, wherein the meltable shutdown particles having an average particle size (D_w) that is greater than the average pore size (d_s) of the pores in said inorganic, nonelectroconductive coating layer.

Claim 32 (New): The separator of claim 1, wherein the meltable shutdown particles having an average particle size (D_w) ranging from d_s to less than 5 d_s, wherein d_s is the average pore size of the inorganic, nonelectroconductive coating layer.

Claim 33 (New): The separator of claim 1, wherein the meltable shutdown particles form a layer having a thickness ranging from 1 to 2 D_w, wherein D_w is the average particle size of the shutdown particles.